

*Date: Wednesday, 19/11/2008 8:35:50 AM
 User: Julie Dawson

Process Sheet

| | | | |
|------------------------------------|--|---------------------------|-------------------|
| Customer : | CU-DAR001 Dart Helicopters Services | Drawing Name : | 206L AFT X-TUBE |
| Job Number : | 43529 | | |
| Estimate Number : | 13222 | | |
| P.O. Number : | | Part Number : | D206667203TRN |
| This Issue : | 19/11/2008 | S.O. No. : | |
| Prsht Rev. : | NC | Drawing Number : | D206-667-243 REVB |
| First Issue : | // | Project Number : | N/A |
| Previous Run : | 43528 | Drawing Revision : | B |
| | Type : | Material : | |
| | CROSSTUBES | Due Date : | 26/11/2008 |
| Written By : | | Qty: | 1 Um: Each |
| Checked & Approved By : | JUD 08.11.19 | | |
| Comment : | Est Rev:A 08-03-06 new issue DD verified by:ec Est Rev B 08.04.02 Removed polish EC verified by: DD | | |

Additional Product

Job Number:



| Seq. #: | Machine Or Operation: | Description : |
|--|-----------------------|------------------------------|
| 1.0 | D6004115 | Crosstube Material |
| | | |
| Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s) Pick: Qty Part number Description Batch 1 D6004-115 Crosstube B34774 Check OD = 2.500"; ID = 1.800" | | |
| 2.0 | MORI SEIKI | MORI SEIKI CNC LATHE LARGE |
| | | |
| Comment: MORI SEIKI CNC LATHE LARGE 1-Fill tube with sand & install plugs DT8534 on both ends as per Folio FA089 2-Turn first side as per Folio FA089 3-File down transition lines smooth. | | |
| 3.0 | QC1 | INSPECT ALL DIM TO DIM SHEET |
| | | |
| Comment: INSPECT ALL DIM TO DIM SHEET | | |
| 4.0 | MORI SEIKI | MORI SEIKI CNC LATHE LARGE |
| | | |
| Comment: MORI SEIKI CNC LATHE LARGE 1-Turn second side as per Folio FA089 2-File down transition lines smooth. 3-Remove sand and plugs | | |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Wednesday, 19/11/2008 8:35:50 AM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 206L AFT X-TUBE

Job Number: 43529

Part Number: D206667203TRN

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

am 08.11.2010

6.0

QC8

SECOND CHECK



AWM 5-11-24



Comment: SECOND CHECK

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



AWM 8-11-24



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

am 08.11.240

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock in kanban rack

Location: *X-TUBE CELL*

8-11-24

10.0

QC21

FINAL INSPECTION/W/O RELEASE



08/11/24

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



mf 08-11-24

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

| | | |
|---|--|----------------------------------|
| DART AEROSPACE LTD | | Work Order: 43529 |
| Description: Crosstube Assembly | | Part Number: D206-667-243 |
| Inspection Dwg: D206-667-243 Rev: B | | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

☒ **First Article**
☐ **Prototype**

| Inspection Sheet | Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|------------------|-------------------|---------------|------------------|--------|--------|----------------------|----------|
| SIDE A | 2.490 | +0.005/-0.000 | 2.495 | / | | | |
| | 2.018 | +0.005/-0.000 | 2.022 | / | | | |
| | 2.079 | +0.005/-0.000 | 2.084 | / | | | |
| | 2.145 | +0.005/-0.000 | 2.150 | / | | | |
| | 2.209 | +0.005/-0.000 | 2.214 | / | | | |
| | 2.287 | +0.005/-0.000 | 2.292 | / | | | |
| | 2.363 | +0.005/-0.000 | 2.367 | / | | | |
| | 2.433 | +0.005/-0.000 | 2.436 | / | | | |
| | 0.200 | +/-0.010 | 0.200 | / | | | |
| | 0.500 x 30° | +/-0.010 | 0.500x30° | / | | | |
| | R0.063 | +/-0.010 | R0.063 | / | | | |
| | R0.500 | +/-0.010 | R0.500 | / | | | |
| | 4.438 | +/-0.030 | 4.438 | / | | | |
| | | | | | | | |
| | | | | | | | |
| SIDE B | 104.91 | +/-0.020 | 104.910 | / | | | |
| | 2.490 | +0.005/-0.000 | 2.495 | / | | | |
| | 2.018 | +0.005/-0.000 | 2.022 | / | | | |
| | 2.079 | +0.005/-0.000 | 2.084 | / | | | |
| | 2.145 | +0.005/-0.000 | 2.150 | / | | | |
| | 2.209 | +0.005/-0.000 | 2.214 | / | | | |
| | 2.287 | +0.005/-0.000 | 2.292 | / | | | |
| | 2.363 | +0.005/-0.000 | 2.367 | / | | | |
| | 2.433 | +0.005/-0.000 | 2.436 | / | | | |
| | 0.200 | +/-0.010 | 0.200 | / | | | |
| | 0.500 x 30° | +/-0.010 | 0.500x30° | / | | | |
| | R0.063 | +/-0.010 | R0.063 | / | | | |
| | R0.500 | +/-0.010 | R0.500 | / | | | |
| | 4.438 | +/-0.030 | 4.438 | / | | | |
| | | | | | | | |

| | | | |
|-------------------------|------------------------|----------------------------|-----|
| Measured by: Q.m | Audited by: ANM | Prototype Approval: | N/A |
| Date: 08.11.20 | Date: 8-11-24 | Date: | N/A |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|------------------------------|------------|----------|
| A | 06.09.01 | New Issue (P/O D206-667-203) | KJ/JLM | |

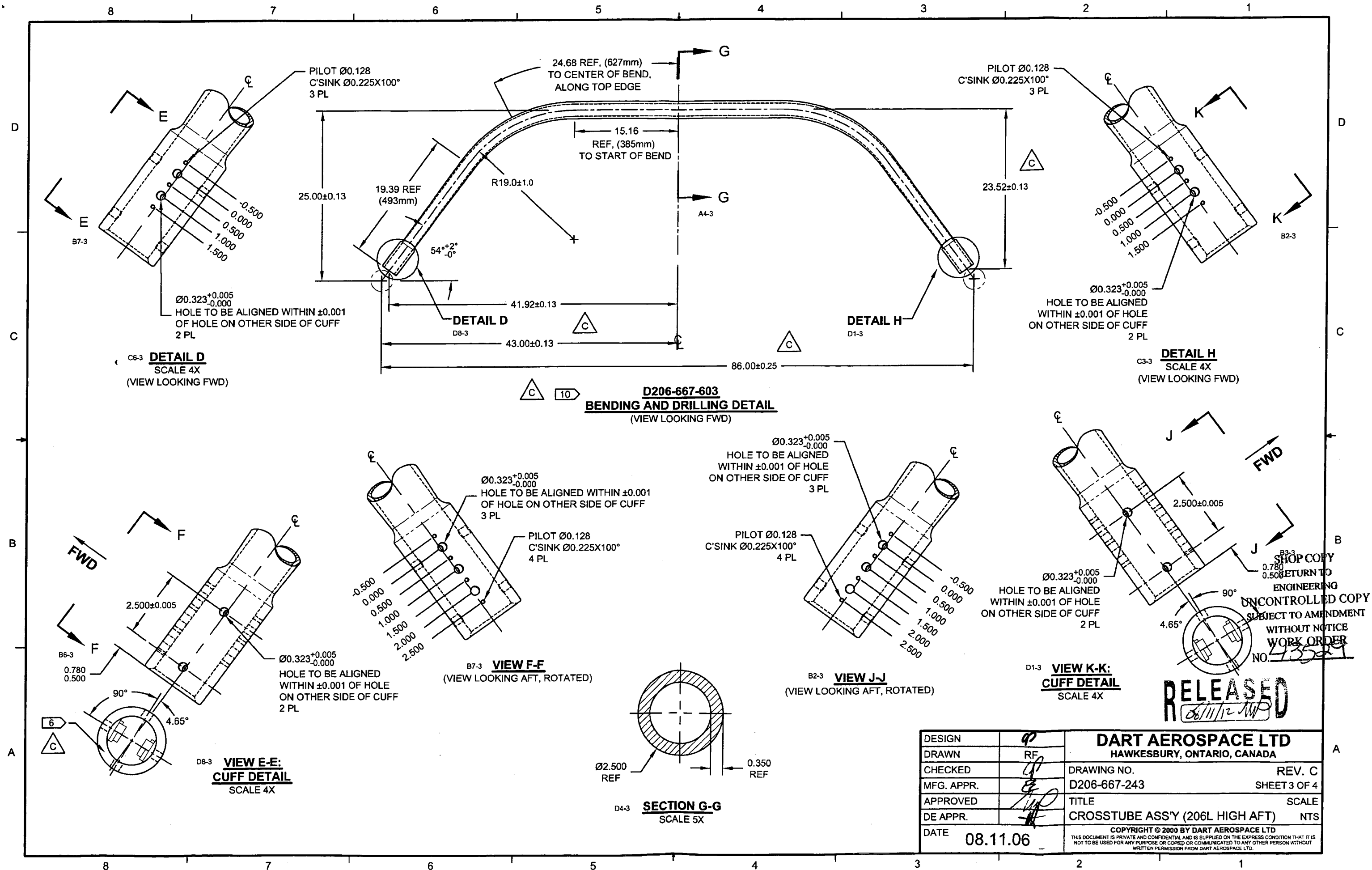
| Item | Qty -243 | Part Number | Description |
|------|-------------|----------------|--|
| 1 | X | D206-667-243 | CROSSTUBE ASSEMBLY (206L HIGH AFT) |
| 2 | 1 | D6004-115 | CROSSTUBE |
| 3 | 2 | D2873-043 | NUT PLATE |
| 4 | 2 | D2873-045 | NUT PLATE |
| 5 | 2 | D2892-1 | SUPPORT |
| 6 | 4 | D3595-063-450 | RUBBER CUSHION |
| 7 | 4 | MS21920-22 | CLAMP |
| 8 | 14 | MS20601AD4W10 | RIVET (OR NAS9302B-4-10) |
| 9 | A/R | MAGNOBOND 6398 | ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299- 947-100, TYPE II, CLASS 2 ADHESIVE) |

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6004-115
FINISHED LENGTH = 104.91±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-243" AND BATCH NUMBER ON
INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 21.9 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY,
TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE
TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2892-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER
QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-22 CLAMPS WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE
D2892-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE
LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE
OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS
SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT
LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN.-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN
SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

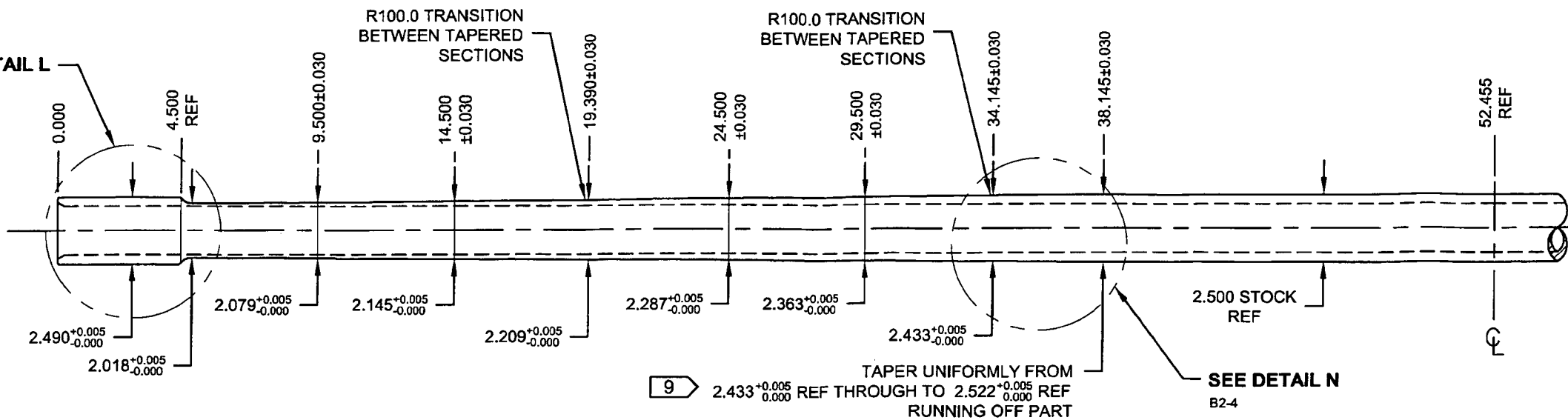
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WORK ORDER
NO. 43529

| | | | |
|------------|---|--|----------|
| C | REVISE GENERAL NOTES/PART LIST (ZN D7-1); REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-450 WAS D2856-400-773 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCES (ZN 4-3, C5-3, D3-3); RELOCATED FLAG #6 (ZN A8-3) PER NCR 210; MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4. | RF | 08.11.06 |
| B | ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKUDTUBES | PH | 05.07.26 |
| A | NEW ISSUE | CP | 00.11.17 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | RF | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| DRAWN | RF | DRAWING NO. REV. C D206-667-243 SHEET 1 OF 4 | |
| CHECKED | RF | TITLE SCALE CROSSTUBE ASS'Y (206L HIGH AFT) NTS | |
| MFG. APPR. | RF | COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. | |
| APPROVED | RF | DATE 08.11.06 | |
| DE APPR. | RF | | |

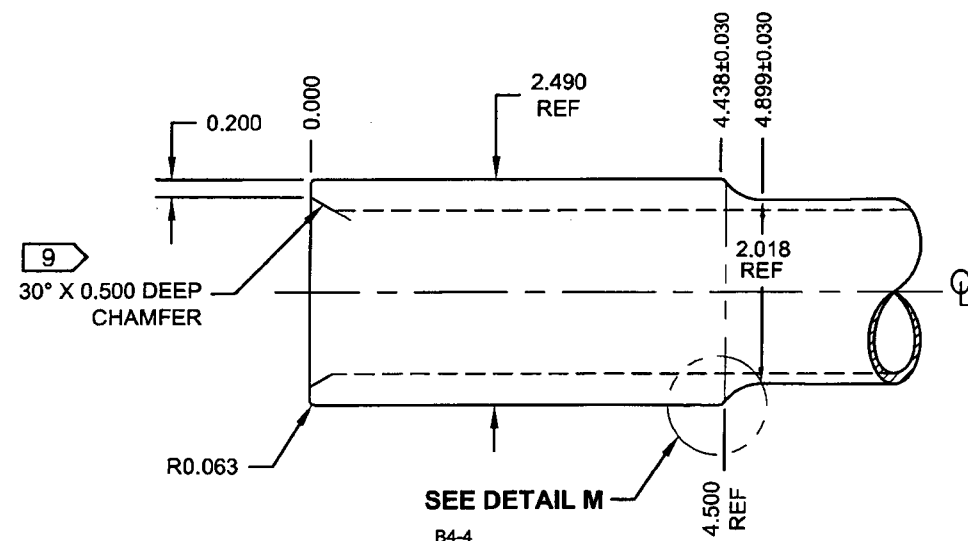


| | | | |
|---|----------|--|--------------|
| DESIGN | DP | DART AEROSPACE LTD | |
| DRAWN | RF | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | GP | DRAWING NO. | REV. C |
| MFG. APPR. | GP | D206-667-243 | SHEET 3 OF 4 |
| APPROVED | GP | TITLE | SCALE |
| DE APPR. | GP | CROSSTUBE ASS'Y (206L HIGH AFT) | NTS |
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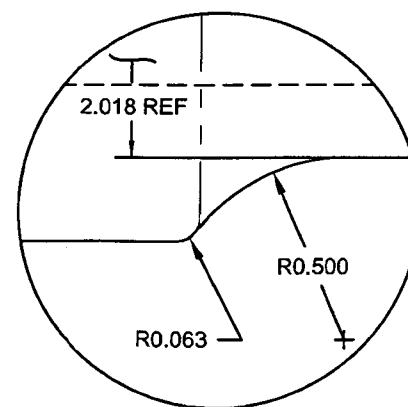
SEE DETAIL L
B7-4



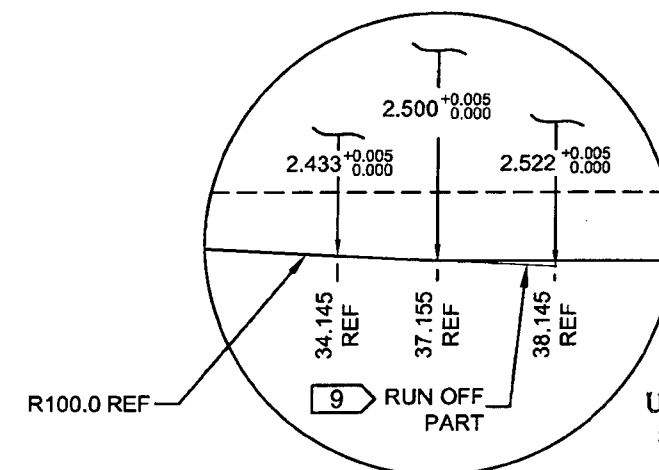
TURNING DETAIL



DETAIL L: CROSSTUBE CUFF
NOT TO SCALE



DETAIL M: CUFF TRANSITION
NOT TO SCALE



DETAIL N: TAPER RUN-OFF
NOT TO SCALE

SHOP COPY
 RETURN TO
 ENGINEERING
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 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 43529

RELEASED
08/11/12

| | | | |
|------------|----------|--|--------------|
| DESIGN | 92 | DART AEROSPACE LTD | |
| DRAWN | RF | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | AP | DRAWING NO. | REV. C |
| MFG. APPR. | EF | D206-667-243 | SHEET 4 OF 4 |
| APPROVED | JP | TITLE | SCALE |
| DE APPR. | JP | CROSSTUBE ASS'Y (206L HIGH AFT) | NTS |
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